

SUSTAINABILITY AND THE GLOBAL CORPORATION: ROLE OF THE CFO

by
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Abstract

The project focuses on whether there are a specific, universal set of guidelines for corporate CFOs to follow to devise sustainability solutions, reporting frameworks, and regulatory compliance. The project author hypothesizes there are major interpretation gaps on how to carry out such initiatives and no one set of guidelines is universally accepted. Most CFOs will have to make a judgement call as to which set of guidelines to follow. Knowledge was obtained by reviewing publicly released company records of several entities and conducting interviews with the relevant persons from select companies preparing and supporting environmental reporting initiatives. Best practices and information were retrieved through a review of articles, financial reports, and guidance from companies, regulatory organizations, and agencies. Project results confirmed several environmental sustainability guidelines exist from various compliance organizations. Companies selected for the research study were based on various market indices measuring sustainability practices amongst publicly traded companies.

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Introduction

Global companies continuously face the challenges of how to address increasing regulatory and compliance requirements in environmental sustainability. “Environmental Sustainability”, according to the U.S. Environmental Protection Agency (EPA) is based on a principle that everything society needs for survival and well-being depends, either directly or indirectly, on our natural environment. In order to pursue this objective, individuals, governments, and companies need to create and maintain conditions for which people and nature can exist together to support current and future generations. ([United States Environmental Protection Agency, 2016](#)). In recent years, several organizations have been successful in advocating more compulsory reporting and accountability for environmental compliance. In June 2012, an international forum in Brazil sponsored by the United Nations ([Rio+20 Corporate Sustainability Conference, 2012](#)) involved many corporate leaders pressing for regulations and incentives to develop a more environmentally friendly economy and support for environmental reporting. In addition, other organizations consisting of a global coalition of regulators, investors, and financial reporting related associations, such as [The Global Reporting Initiative – GRI](#) and [Sustainability Accounting Standards Board - SASB](#), have been developing separate frameworks for non-financial environmental reporting. Sustainability Reporting, as pointed out by GRI, enables organizations to consider their impacts of wide range of sustainability issues, enabling them to be more transparent about the risks and opportunities they face ([The Global Reporting Initiative, 2016](#)). Many companies signed a commitment to new regulatory and reporting initiatives that were suggested at the Rio conference. Furthermore, the European Union set a December 2016 Directive deadline

for large companies to start publishing non-financial information ([The European Commission, 2016](#)). Executive management need to address the challenges of how to adequately prepare non-financial sustainability reports, incorporate sustainability initiatives in the form of metrics to realize cost savings, and at the same time demonstrate transparency to regulators and shareholders. Consequently, these initiatives have been given primarily to the corporate CFO. Based on a 2012 Deloitte CFO survey ([Deloitte, 2012](#)) which involved 250 interviews representing 14 countries and 15 different industries with an average firm annual revenue of US \$12 billion, many CFOs are taking on added responsibilities in creating and monitoring a sustainability strategy, developing tools and benchmarks for initiatives, how to work with public company rating agencies (i.e. Dow Jones Sustainability and the FTSE4GOOD indexes), develop corporate rankings in the marketplace, and which investments to make to curtail an organization's negative effect on the environment whilst realizing cost savings.

Project Goals

The project focuses on whether there are a specific, universal set of guidelines for corporate CFOs to follow in order to devise sustainability strategy solutions, reporting frameworks, and cooperation guidelines with regulatory organizations.

Procedures and Methods

Information and analyses of qualitative and quantitative data was conducted by reviewing publicly released records of several entities and interviewing persons preparing and supporting environmental reporting initiatives. The companies under review were:

- The Walt Disney Company – part of the FTSE4Good Index
- Exxon Mobil – part of the Dow Jones Sustainability North America Index

- Coca Cola – part of the Corporate Knights Global 100 rankings
- Unilever – part of the Corporate Knights Global 100 rankings

Articles, financial reports, and best practices were also reviewed based on literature available from the following regulatory organizations and agencies:

- Sustainability Accounting Standards Board (SASB)
- The Global Reporting Initiative (GRI)
- Dow Jones Sustainability Index
- FTSE4GOOD index
- Corporate Knights - The Magazine for Clean Capitalism

Project Mentor

James R. Calvin, PhD (Communication, Culture, and Phenomenology, New York University), Professor at the Johns Hopkins Carey Business School since 1996. His expertise is in leadership development, economic development, and nonprofit entities.

Project Benefits

The project offers a set of guidelines and resources for new and existing global companies to consider when starting or improving upon existing sustainability strategies and reporting requirements. The project will foster new cooperation between the author, faculty at the Carey Business School, and companies participating through interviews. The results of the project may offer potential value-add for all participants. Companies partaking in the project will have the opportunity to consider sustainability strategic approaches used by other organizations. The report could be used as a basis for which companies could seek consulting support either from the student and/or the Johns Hopkins Carey Business School. The project is building on previous work experience the

author gained in the area of financial reporting, internal audit, and risk management. The project's author has extensive experience in international accounting, corporate finance, operations, account management, and auditing with early-stage and large multinational companies in the U.S., Europe, Asia, and Russia. Areas of expertise include knowledge of U.S. Generally Accepted Accounting Principles, International Finance Reporting Standards, IT and operational audits, financial analysis, and leadership. The project will build upon the author's publication interests, which already include numerous articles related to internal audit best practices and fraud investigations. The author is a Certified Internal Auditor (CIA), Certified Fraud Examiner (CFE), Certified Information Systems Auditor (CISA), and finishing the Certified Professional Accountant (CPA) designation. No prior work was completed or added to this project.

Project Challenges

Challenges facing the project's completion were minimal, as most of the information was available via internet, company, and regulatory websites. Furthermore, cooperation of professionals per interviews were also conducted to support project goals.

Results

The hypothesis holds true that there are interpretation gaps on how to carry out environmental reporting initiatives, since the CFO and executive management have two frameworks to choose from (GRI and SASB). Currently, there is no required regulatory reporting format on environmental sustainability issues, as the information is purely voluntary for publicly traded companies to provide on 10-K or Form 20-F forms to the Securities and Exchange Commission (SEC). Yet, in accordance to SEC Regulation S-K

([SEC, 2016](#)), companies are required to report information if it may have an effect on an investor's decision on whether or not to invest in a company.

There are several differences between GRI and SASB. GRI focuses on stakeholders, while SASB concentrates on the readership of investors. Reports based on GRI guidelines focus on how companies identify, manage, and react to the impacts on stakeholders. Reports based on SASB standards focus on a company's performance which affects the financial statements. The definitions on materiality are also different between both frameworks. GRI's definition of materiality is based on the impacts on stakeholders, therefore assessment of materiality requires stakeholder involvement and also evaluations of entities not controlled or owned by the company (i.e. poor labor or operational practices from suppliers). SASB standards are based on investor information interests, which are more focused on the financial results based in the report, and not necessarily the policies and procedures for improvements in environmental sustainability. SASB does not include stakeholder engagement in the reporting process and materiality assessments related to company financials are part of SASB implementation guidelines.

Utilizing only GRI guidelines will provide the CFO the methodology on how to identify sustainability issues and which indicators to consider for corporate goal setting. GRI has been in existence for 20 years and has a universal recognition in reporting. For CFOs wanting more a more tailored approach in accordance to their industry, SASB metrics should also be considered, as this organization has defined metrics for each industry segment whilst also combining GRI methodology in their framework. Based on the project findings, companies should consider using a mix of both methodologies to allow a more thorough set of reporting deliverables for investors and stakeholders. The

four companies selected for the study are at the moment only using GRI guidance, as the project author believes SASB reporting has not been part of their reporting processes due to SASB being a relatively new organization (founded in 2011) as their standards are undergoing a second review before final codification. The table below summarizes the main differences between GRI and SASB.

Key differences between GRI and SASB		
	GRI G4	SASB
Output document	Sustainability report	Disclosures within 10-K
Readers of output documents	Stakeholders, including investors	Investors
Targeted users of standards	All organizations regardless of size, sector or location	Companies that are required to file Form 10-K or Form 20-F to the SEC
Region	Global	United States
Legislative status	Voluntary in most parts of the world: GRI does not actively advocate for its standards to be mandatory.	Aimed at being mandatory for 10-K SEC filings.
Principles or rules based	Principles based	Rules based
Definition of materiality	Aspects that:	Information “presenting a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the ‘total mix’ of information made available.”
	Reflect the organization’s significant economic, environmental and social impacts; or	
	Substantively influence the assessments and decisions of stakeholders	
Reporting boundary	Anywhere the organization has significant impacts:	Entities owned or controlled
	Entities within the boundaries of financial report, entities outside the boundaries of financial report, or both within and outside	
Number of required disclosures	Depends on outcome of materiality assessment.	Different for each industry as each industry has their own set of accounting metrics.
Materiality assessment	Required disclosure about materiality assessment methods of reporting organization (G4-17 to G4-23)	SASB identifies material issues at the industry level as per the U.S. Supreme Court definition of materiality
Stakeholder engagement	Required disclosure (G4-24 to G4-27)	No information
Assurance	Strongly encouraged, but no specific guidance	Encouraged to be included in the assurance of the 10-K or 20-F

Discussion

Initial steps for the study were to examine two organizations (the SASB and GRI) which develop sustainability metric and several market index organizations which track companies with sustainability reporting. Companies were evaluated by reviewing products and services offered to the market and environmental metrics used in reporting.

Organizations Providing Environmental Sustainability Guidance

The Sustainability Accounting Standards Board. SASB is a non-profit organization founded in 2011 and based in San Francisco, California which develops sustainability accounting standards to help publicly traded companies disclose material information related to environmental impact factors to shareholders, regulators, and the general public. The organization develops standards through research and management participation with entities from many industries. According to the SASB, the need for sustainability reporting have been due to a number of reasons such as (1) regulatory pressures - reporting mandates in multiple markets, disclosure reform, and exchange listing requirements; (2) economic pressures - resource constraints, climate change, and changing valuations with the rise of intangibles; (3) investor pressures - shareholder resolutions, questionnaire overload, calls for divestment; and (4) current state of disclosure - proliferation of boilerplate disclosures and the inappropriate use of the word materiality in corporate communications ([SASB, 2016](#)). SASB has issued standards for 79 industries in 10 sectors and is currently reviewing these standards over the next 12-18 months with issuers and investors on the relevance and decision-usefulness of the standards, feasibility, and cost-effectiveness of their implementation ([PR Newswire, 2016](#)). When developing standards, SASB analyzes 10-K filings of every industry to

understand how companies are disclosing information identified in the SASB standards. Currently, companies are disclosing about 70% of disclosure topics related to SASB standards in their 10-K filings. Furthermore, 10% of 10-K filings are using metrics. Yet, 40% of the filings contain boilerplate information, which doesn't help investors evaluate sustainability performance. The SASB uses a comprehensive list of sustainability issues in a web portable called the [SASB Standards Navigator](#) which allows a company to select their sector and industry to review sets of metrics and industry-specific topics such as green-house gas (GHG) emissions, air quality, energy management, fuel management, water and wastewater management, waste and hazardous materials management, and biodiversity impacts (see Appendix A) Approximately 25% of SASB metrics are aligned with other internationally recognized frameworks.

Key sources of SASB metrics:

Nearly a quarter (23% or 255/1,097) of SASB's industry-specific metrics are directly aligned with the following widely used disclosure and reporting frameworks:

SASB Topic	Metrics Alignment
Greenhouse Gas Emissions	CDP Climate Change Information Request (CC3, CC8.2); GRI G4 (EN15, EN19); Greenhouse Gas Protocol (WBCSD and WRI)
Energy Management	Greenhouse Gas Protocol (WBCSD and WRI); GRI G4 (EN3)
Air Emissions	U.S. Environmental Protection Agency (EPA); GRI G4 (EN21)
Water Management	CDP Water Information Request (W1.2a, W1.2c, W2-W4); World Resource Institute Aqueduct™; GRI G4 (EN8-EN9, EN22); WBCSD Global Water Tool (GWT); CEO Water Mandate
Employee Health & Safety	U.S. Occupational Safety and Health Administration Form 300
Diversity	U.S. Equal Employment Opportunity Commission EEO-1 Report
Data Security	U.S. SEC CF Disclosure Guidance: Topic No. 2, Cybersecurity
Fines and Settlements	U.S. SEC Regulation S-K Item 103 (Legal Proceedings)

Notes:

- 22% of metrics are qualitative in nature, for which "alignment" is a different consideration.
- SASB has not conducted the data analysis for the balance of the quantitative metrics, but many have strong direct alignment with industry-specific data collection and reporting frameworks.

Source: [SASB Implementation Guide for Companies \(2016\)](#)

Eli Reisman, Director of Partnerships at SASB, made several important points as to the general trend of companies facing choices between using SASB and GRI guidelines. Per his experience with companies developing environmental reporting, he believes SASB and GRI have been created to serve different audiences. Companies are just beginning to understand why it is important to differentiate information intended for the investment community as opposed to other key stakeholders. Company data providers are actively extracting sustainability data from public company sustainability reports, which are meant for a wide stakeholder audience. The data in these reports is not investment grade, often not material, comparable, nor subject to internal controls. However, because data providers are now feeding this information to investors, investors are now beginning to make investment level decisions based on this information. Thus, more CEOs are beginning to understand that it can be risky for their company to group all sustainability data together because the company is not able to determine whether investors are making decisions using information material to the business nor have assurance investors are making decisions using high quality and reliable data. He advised companies should utilize the SASB Implementation Guide which will give the CFOs a great framework on how they can begin to develop and track sustainability data for financial disclosure. The guide provides several key steps which include (1) conducting a materiality assessment; (2) doing a disclosure analysis and benchmarking; (3) performance evaluation and benchmarking; (4) implementation considerations; and (5) disclosure considerations. SASB offers a list of Advisory Partners to help companies utilize the SASB framework. (E. Reisman, personal communication, April 12, 2016).

The Global Reporting Initiative. GRI is an international non-profit organization founded in 1997 and based in Boston. GRI helps businesses, governments, and other organizations understand and communicate sustainability issues in management and financial reporting. The company pioneered sustainability reporting starting in the late 1990s and provides widely used standards allowing stakeholders and businesses to make better investment and consumer based decisions. The GRI Sustainability Reporting Guidelines are periodically reviewed to provide updated guidance for effective reporting, as the organization recently released a 4th version of its standards (G4). The G4 update has a greater focus on materiality of environmental issues affecting an organization's operations and finances. G4 also provides guidance on how to present sustainability disclosures in different reporting formats (standalone sustainability reports, integrated reports, annual reports, reports that address particular international norms, or online reporting) ([GRI, 2016](#)). In comparison to SASB guidelines, which primarily focuses on environmental reporting, GRI offers more reporting categories which include economic, environmental, social, labor practices, human rights, and product responsibility. GRI does not provide detail, tailored reporting guidelines and metrics for sustainability reporting. Instead, it provides a high level set of reporting guidance (see Appendix 2). Per communication with Tamara Bergkam, Manager of Reporting Standards at GRI, several points were made. GRI only assists companies in implementation based on the [workshops led by a GRI facilitator](#), [GRI implementation guides](#), and recommended advisory partners to assist in implementation. GRI also offers a [Certified Training Program](#), which gives knowledge of the GRI guidelines and reporting to facilitate their use within an organization (T. Bergkam, personal communication, April 11, 2016).

Agencies Providing Environmental Sustainability Performance Ratings

The Dow Jones Sustainability Index. Launched in 1999, DJSI is a rating agency made up of two separate categories, the North American and International indexes. Companies listed on these indexes are selected based on long-term economic, environmental, and social criteria which is evaluated through an extensive Corporate Sustainability Assessment (CSA) process targeting 57 industry groups. The assessment and research reviews general and industry-specific sustainability issues while also evaluating companies in accordance to trends related to climate change strategies, energy consumption, human resources development, knowledge management, stakeholder relations, and corporate governance. Companies that meet and maintain these criteria are selected for index membership. Many companies have an interest to be listed on the DJSI because it helps validate their sustainability initiatives and achievements to shareholders, regulatory agencies, and the general public. The first step in the DJSI listing process is the CSA process which occurs through invitation and conducted by RobecoSAM, an external research agency that focuses on sustainability investing, asset management, indices, benchmarking, and impact analysis services ([RobecoSAM, 2016](#)). Companies invited to the assessment are required to complete an industry-specific questionnaire. A key part of the CSA is continued monitoring of the media, stakeholders, regulatory, and government agencies which provide additional feedback about the level of company involvement and response to environmental, economic and social crisis situations. DJSI monitors existing index members daily using RepRisk, a leading external provider of business intelligence on environmental, social and governance risks. RepRisk screens and analyzes these risks to help identify a company's involvement with

environmental, corporate, and social issues which may have a negative effect on its reputation and core business, and whether a company's existing policies, procedures, and obligations allow it to continuously perform well ([Business Wire, 2014](#)).

The FTSE4GOOD Index. Founded in 2001, the FTSE4GOOD Index is a rating agency recognizing European companies with developed sustainability practices in their operations and financial reporting. About 900 companies are included in the index, as data is collected on a regular basis by an external agency, Ethical Investment Research Services (EIRIS). Information from company reports, webpages, and articles are used to track a listed company's results in handling environmental issues ([EIRIS, 2011](#)). Twice per year, the index conducts reviews for existing and potential new members. The index criteria focuses on how a company manages environmental policies, management systems and reporting, human and labor rights, supply chain labor standards, fraud, climate change, and use of natural resources. During the review process, companies have the chance to demonstrate their attempts to meet the criteria based on progress towards incorporating good sustainable business practices.

The Corporate Knights. CK is a media and financial information research company which focuses on promoting the idea that a company's value should be based on social, economic, ecological costs, benefits, and the transparency of such information to stakeholders, regulators, and the public. The organization publishes a yearly study called the "Global 100 Most Sustainable Corporations" ([Corporate Knights, 2016](#)). CK developed a Council for Clean Capitalism, which is a multi-industry group of Canadian companies focused on promoting economic and social policy changes to increase sustainability practices for businesses. To be part of the Global 100 list, several factors

must be taken into account for a prospective company. Publicly traded companies with a market capitalization greater than \$2 billion are automatically considered and evaluated based on a set of twelve key performance indicators (see Appendix C). A company which fails to disclose at least 75% of the priority indicators related to sustainability practices for their respective industry group class is automatically eliminated. The second factor involves the calculation of a scoring system (Piotroski F-Score) which involves nine separate tests related to financial performance. Other factors relate to product category (companies are eliminated if products are considered harmful - i.e. tobacco industry) and sanctions or corporate fines paid for environmental violations.

Selected Companies Preparing and Releasing Sustainability Reports

Four publicly traded companies actively preparing sustainability reports and rated by several agencies (Dow Jones, FTSE, and The Corporate Knights) were selected; The Walt Disney Company, Exxon, Coca-Cola, and Unilever.

Company	Reporting Guidance	Operations, Products, Services Related to Environmental Impact	Performance Area Targets
Walt Disney	GRI	Amusement parks, hotels, restaurants, offices	-Reduced emissions through more efficient use of electricity and fuels. -Waste recycling and reduction. -Water conservation.
Exxon	GRI	Oil extraction, petrochemical production, filling stations.	-Reduced emissions through more efficient use of electricity and fuels. -Waste recycling and reduction. -Protecting biodiversity and ecosystems. -Water conservation. -Oil spill performance reduction and prevention. -Water conservation and reuse.
Coca-Cola	GRI	Beverages	-Reduced emissions through more efficient use of electricity and fuels. -Waste recycling and reduction. -Use of sustainable packaging materials. -Water conservation. -Partnerships with sustainable suppliers.
Unilever	GRI	Consumer food and cleaning products	-Reduced emissions through more efficient use of electricity and fuels. -Waste recycling and reduction. -Use of sustainable packaging materials. -water conservation. -Partnership with sustainable suppliers. -Educating consumers/communities on nutrition, health, and hygiene.

The Walt Disney Company. The company is an entertainment organization which operates and broadcasts television / radio networks and stations, produces television programming, and owns several well-known networks such as ESPN, The Disney Channel, and ABC. Walt Disney owns several entertainment resorts, vacation properties, and sells merchandise in retail stores. Total revenues as of year-end 2015 amounted to \$52.5 billion. On an annual basis, the company prepares a Citizenship Performance Summary Report illustrating the entity's sustainability and non-sustainability values as well as initiatives taken to achieve them. The sustainability reporting initiatives related to environmental stewardship focus on three key areas; emissions, waste reduction, and water conservation ([Walt Disney, 2014](#)).

Emission Goals. Disney has an emissions reduction goal aligned with the United Nations Intergovernmental Panel on Climate Change (IPCC) scientific recommendation to cut economy-wide emissions by 40% below 1990 levels by 2020 to stabilize carbon dioxide-equivalent levels at 450 parts per million (ppm). To achieve this goal, Disney set a goal of zero net greenhouse gas emissions through operating efficiencies, replacing fuels high in carbon with alternatives, and using carbon certification offsets for other emissions. In 2014, Disney estimated its total greenhouse gas emissions were 1.63 million metric tons of carbon dioxide (CO²) equivalents as the company retired 532,000 metric tons of CO² equivalents from carbon projects located in the United States, Brazil, China, and Peru. In comparison to 2012, Disney decreased net emissions by 31%. Disney's success was due to technology and operational improvements, as well as employee behavioral initiatives. Highlights of these initiatives included (1) installation of a 1 MW fuel cell for the company's Pixar movie studio campus in Northern California;

(2) a new digital center at the offices of its ESPN television network which achieved LEED certification from the U.S. Green Building Council for energy reductions and operational efficiencies; (3) heating and air conditioning replacements; (4) central plant automation; (5) exterior and interior lighting upgrades, and (6) performance expectations for energy efficient behavior in the workplace. Disney's research and development department continues to evaluate alternative and renewable energy sources for operations and new design technologies for construction projects to support emissions target reductions. Disney also developed a fund for which proceeds are used to foster internal innovation and efficiencies for improved environmental sustainability.

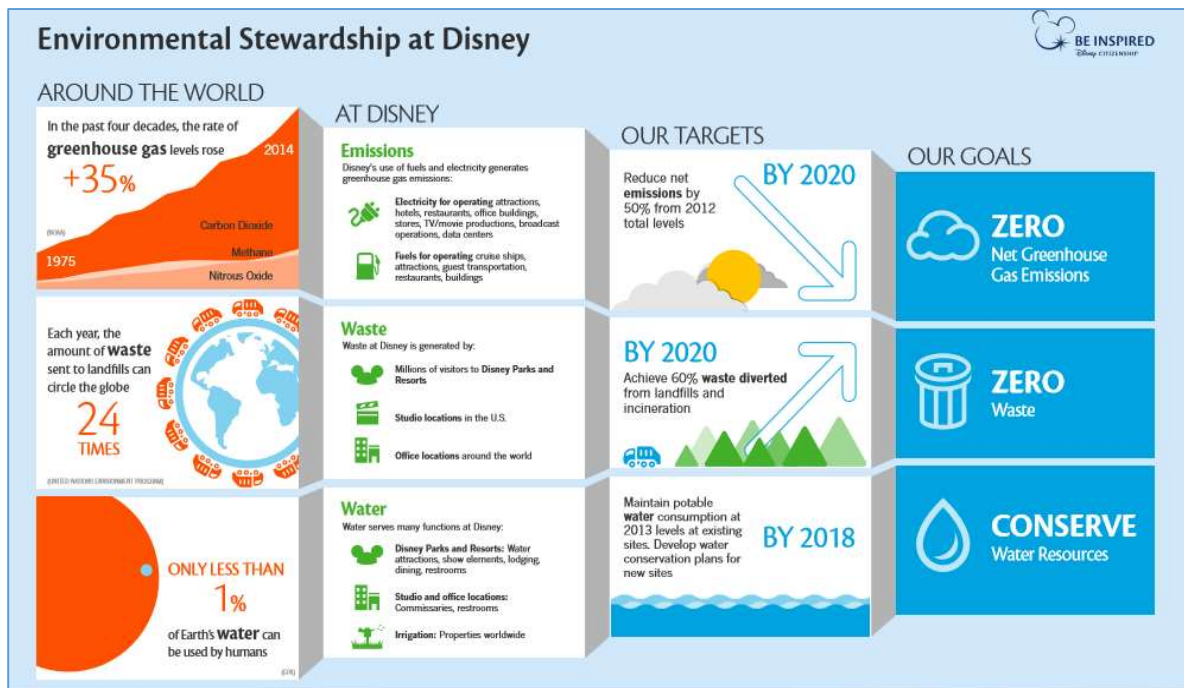
Waste Reduction Goals. Disney is focused on a zero waste goal by significantly decreasing waste which is usually diverted to landfill and incinerated without energy recovery. Such initiatives include reducing, reusing (internal and external donations), recycling, composting, non-thermal waste-to-energy, and thermal waste-to-energy programs. In 2014, Disney started to collect and use waste data to measure waste reduction initiatives. The company also began to make distinctions between operational and construction waste. By separately analyzing waste types, the company could start setting diversion rate goals for operational and construction wastes to improve waste reduction efforts (diversion may include operational recycling, compost, donations, sold and liquidated items, documents or items sent to archives, items reissued through property control, thermal waste-to-energy, and non-thermal waste to-energy). In the last quarter of 2014, 48% of waste was diverted from landfills and incineration. One initiative related to operational waste diversion rate improvements has been the activities

at ESPN to implement strict recycling and composting activities. Disney also improved diversion rates in construction through business improvements.

In 2014, Disney also conducted waste management assessments throughout the U.S. to evaluate existing processes to reduce waste, increase recycling, and employee behavior. Supply chain improvements in reducing waste have been identified through better distribution and internal education. For example, Disney Resorts set up a program to send food scraps collected from preparation and post-consumer use to a local facility for processing into feed nutrients for farm animals. Disney Resorts also developed a working relationship with a local Florida facility, Harvest Power Orlando, by providing organic waste which could be converted to renewable biogas and natural fertilizers. The relationship also benefits the Orlando community because the power company has the potential to produce 5.4 megawatts of heat and power. Internationally, Disney has cooperated with non-profit food donation programs and also sent waste for collection and biomethanization treatment for energy recovery.

Water Conservation Goals. Disney emphasizes the importance of proper water use and conservation in conjunction within the community. The company evaluates risks at each site to improve and maintain potable water consumption. In 2014, water consumption was 7.89 billion gallons, slightly below 2013 levels. Disney has been working with the cities of Burbank and Glendale, California to convert its irrigation system to reclaimed water. By doing so, this initiative saved almost 6 million gallons of potable water in Burbank and 9 million gallons in Glendale. Internationally, Disney's waste water treatment plant for its entertainment complex in Paris, France saved 53

million gallons of water during its first year of use and also helped contribute to a 13% decrease in water use compared to the prior year.



Source: [Disney Citizenship 2014 Performance Summary](#)

DATA TABLE			
FISCAL YEAR ¹	2012	2013	2014
Environmental Stewardship			
Combined Direct + Indirect Emissions (million metric tons CO ₂ eq) ²	1.60	1.68	1.63
Retired Carbon Credits (metric tons CO ₂ eq) ³	435,186	457,882 ³	531,970
Net Emissions (million metric tons CO ₂ eq)	1.17	1.23	1.10
Electricity (million kilowatt hours) ⁴	1,821	1,866	1,835
Total Waste Diverted from Landfill and Incineration (tons) ^{5,6}	N/A	N/A	48% for Q4 of FY14
Water Use (billions of gallons of potable water) ⁷	N/A	6.93	6.89

Environmental Targets- Source: [Disney Citizenship 2014 Performance Summary](#)

6. Environmental Performance Indicators

DMA Management Approach
Disclosures: Environmental

Emissions target p. 67
Waste target p. 71
Water target p. 73
Product Footprint target p. 89
Paper Policy targets p. 90
ERI target p. 92
Data Table p. 20
[Environmental Stewardship](#) (web)
[Environmental Policy](#) (web)
[Disney's Environmental Stewardship Goals and Targets](#) (web)
[Standards of Business Conduct](#) (web)
Infographic: Environmental Stewardship at Disney p. 74



We are working to reduce our environmental impact through projects big and small. From reducing our electricity consumption to investing in reforestation around the world, we are working to help protect the planet for future generations.

Materials

EN1 Materials used by weight or volume

Paper targets p. 90

We introduced our Paper Policy in October 2012. The paper policy focuses on the responsible sourcing and responsible use of paper in our day-to-day operations. This policy will help us better understand the amount and source of paper used throughout the Company.



EN2 Recycled input materials

Waste target p. 71
Product Footprint target p. 89

In addition to discussion of different initiatives throughout the Company to integrate recycled materials into Disney products, our wood policy, paper policy, and product footprint targets integrate goals around recycled materials. However, due to the diversity of our businesses, we do not provide an enterprise-wide break down on the percentage of materials used that are recycled input materials.



Source: [Disney Citizenship 2014 Performance Summary](#)

Per discussion with John Kim, Disney Corporate Citizenship, Insights, and Integration, the CFO has taken the lead in driving sustainability reporting, as this process has been in place since 2008. Initially, Disney had two separate departments which were eventually merged into one (Environmental and Philanthropy). Disney used the GRI framework to develop benchmark metrics, which was supported by leadership. The company's internal corporate reporting department has been responsible for preparing the reports and collecting data. In regards to which guidelines to select (GRI versus SASB), Disney has played close attention to SASB development and in some cases played a part in the standards codification review process. Disney seems to be an outlying organization without any specific industry classification because of its involvement in several areas

(i.e. media, cruise ships, hotels, retail merchandising). Due to the number of businesses Disney is involved in, it's hard for the company to be benchmarked with other organizations that have only one line of business. According to Mr. Kim, the benefits of sustainability reporting have been the ability to deliver information to a growing audience of investors, regulators, information providers, and stakeholders. He believes that the trend for regulatory reporting is on the rise, particularly when it comes to sustainability issues (J. Kim, personal communication, April 11, 2016).

Exxon Mobil Corporation. Exxon is one of the largest oil producers worldwide and also involved in manufacturing petrochemicals and specialty products. The company has approximately 36,000 oil wells and as of year-end 2015, total revenues were \$260 billion. Exxon prepares an annual Corporate Citizen Report containing key indicators and factors which address the challenges of sustainable development (see Appendix D). The report is focused on six key areas; (1) community and social impact; (2) work safety and health; (3) economics and corporate governance; (4) local development; (5) supply chain management; and (6) environment. Exxon's environmental goals primarily center around several areas, which include environmental management, biodiversity and ecosystem focus, water management, spill performance, air emissions, environmental compliance, and rehabilitation ([ExxonMobil, 2014](#)).

Environmental Management. Exxon manages its environmental risks through a series of assessments. The company continues to identify, assess, manage and monitor environmental risks throughout project lifecycles and through continuous monitoring of local regulatory requirements in which they operate. Risks are identified by conducting Environmental Aspects Assessments (EAA), Environmental, Socioeconomic and Health

Impact Assessments (ESHIA), Environmental, Socioeconomic and Health Management Plans (ESHMP), and Environmental Business Plans (EBPs). The company consolidates information collected from all assessments through one database (Operations Integrity Management System - OIMS). This approach establishes a common framework for addressing safety, security, health, environmental and social risks and their related impacts. It also provides a systematic, structured approach to measure progress and track accountability across business lines, facilities and projects.



ExxonMobil's OIMS Structure- Source: [ExxonMobil Corporate Citizenship 2014 Report](#)

Biodiversity and Ecosystem Focus. Exxon has continually strived to be a leader in safeguarding ecosystems in which they operate in. The company identifies and evaluates environmental, social, health risks and opportunities to maintain biodiversity and ecosystems. In 2014, the company continued to study the ecosystem in the Gulf of Mexico by partnering with the Harte Research Institute for Gulf of Mexico Studies. The study engaged with local businesses, communities, federal agencies, researchers and non-

profit organizations to identify and prioritize existing ecosystems. The company also provides financial support to organizations focused on biodiversity protection. For example, Exxon is collaborating with two universities (Qatar University and Texas A&M University) to study a marine mammal species listed as vulnerable to extinction along Qatar's coastal waters. Exxon also carries out other biodiversity studies prior to drilling and production. For example, the company has an oil exploration project in Alaska (Point Thomson Project) which started in 2014. Exxon has already made initial evaluations in order to understand the physical, biological and social environment and has worked alongside the surrounding local communities which resulted in project design modifications to avoid disruption with existing hunting areas and wildlife. Exxon has also conducted extensive aerial photo studies of the migrating patterns of Alaskan caribou, so as to not disrupt the species which has been in steady decline. Exxon has conducted fish and sediment impact surveys prior to the start of the Point Thomson Project. In general, Exxon continuously screens locations of their major operating facilities with the databases of the International Union for Conservation of Nature (IUCN) and World Protected Areas. The company also uses this data to develop emergency response contingency plans to prioritize areas needing protection, and as supplementary information when conducting environmental impact surveys during new or brownfield developments. Exxon works with the Wildlife Habitat Council (WHC) in developing education and outreach programs to communities and their workforce to help promote environmental awareness, biodiversity and science initiatives. The company also monitors the amount of land managed for wildlife purposes. At the end of 2014, Exxon was managing 7,200 acres of land for wildlife.

Water Management. Exxon has made several commitments, specifically minimizing the impacts of water withdrawals, consumption, and discharges. By the end of 2014, Exxon estimated net freshwater consumption worldwide was 270 million cubic meters, an amount that has been on decline over the last five years. Exxon also reduced freshwater consumption by 15% over the last eight years due to local water management strategies. Exxon's total water consumption includes usage by downstream refineries and chemical plants, upstream oil and gas production, and energy for shale development in the United States. Implementation of local water management strategies includes the use of freshwater alternatives such as recycled municipal and industrial wastewater, seasonal water management, and rainwater harvesting. Technological applications are one of the primary areas which have enabled the company to decrease water consumption. Exxon's wastewater treatment facility in Singapore illustrates the use of technology, as the plant uses an advanced membrane bioreactor (MBR) technology to treat wastewater, enabling it to be reused as cooling water, which reduces the overall amount of freshwater used in the plant by 3%, and the remaining treated wastewater to be discharged is well within the specifications set by the Singapore government. As a result of this technology, 30-40% of treated water is reused as cooling water. Another example of Exxon's water conservation efforts relates to an Exxon subsidiary in Canada (Imperial) focusing on freshwater reduction projects. By the end of 2014, projects resulted in reduced freshwater consumption by 30% in compared to ten years prior.

Spill Performance. Exxon also focuses on preventative strategies to avoid oil spills and to have in place a rapid response system. By the end of 2014, the total volume of hydrocarbons spilled to soil and water was 9,100 barrels, for which more than 60%

percent was recovered at the spill sites. Most spills did not affect local communities nearby. Over the last ten years, Exxon reduced the number of spills of more than one barrel by 10%. In 2012, Exxon started measuring significant spills to the environment (SSEs) across the company. SSEs are spills to surface water and groundwater which can be detrimental to the local environments or communities. In 2014, Exxon had 20 significant spills, as SSEs represented 6% of the total number of spills. Thus, Exxon has been more focused on prevention initiatives, greater detection of corrosion, third-party damage, or intrusions. Marine cargo transit data is also monitored by Exxon, as the company has approximately 500 vessels in daily service, which logged 20,000 voyages and 42,000 port calls in 2014, whilst transporting 1.4 billion barrels of crude oil and refined products. The company conducts international joint ventures in sustainability. In 2014, Exxon and a Russian oil producer (Rosneft) formed a joint venture conducting drilling operations in the Kara Sea which included environmental studies, seismic operations, use of an advanced ice management system and a winterized drilling rig.

Air Emissions. Exxon also continues to seek opportunities to reduce the environmental impacts from operations and products. The company's combined emissions of volatile organic compounds (VOCs), sulfur dioxide (SO²) and nitrogen oxides (NO) have decreased more than 40% over the past 10 years across all of its operations. Their Baytown, Texas refining and petrochemical complex has achieved double-digit improvements in energy efficiency and air quality in the past decade. The Baytown refinery uses energy more efficiently than 90% of all other U.S. refineries. Over the past decade, energy efficiency across the refinery has improved by 10%, and NO and VOC emissions have been reduced by 46% and 40% whilst air-related incident

performance has improved by 64%. In 2014, the company completed its clean fuels project at their refinery in Saudi Arabia, a joint venture of ExxonMobil and Saudi Aramco. The project's desulfurization facilities can cut sulfur levels in gasoline and diesel by more than 98%. The ultra-low sulfur fuels produced as a result of this investment will allow for reduced emissions when used in modern engines.

Environmental Compliance and Rehabilitation. Exxon has emphasized and made strides in compliance and rehabilitation of existing facilities. For example, the company installed a denitrification facility to reduce nitrate emissions, particularly in the Gulf of Mexico where 500 tons was reduced on an annual basis. Exxon's also monitors environmental compliance expenditures which was \$6 billion in 2014 that includes \$2.5 billion in capital expenditures and \$3.5 billion in operating expenses. Exxon encountered 74 issues related to penalties, fines, and settlements, less than 1% of environmental expenditures, approximately \$15 million. Exxon's Environmental Services department (EMES) has been providing guidance and support on environmental remediation by managing \$5.1 billion on remediation work, monitoring 5,600 sites, and returning 1,400 properties to beneficial end use since 2008. Exxon also engages in academic and regulatory organizations, including the U.S. Environmental Protection Agency (EPA).

The Coca-Cola Company. Coca-Cola manufactures and distributes many kinds of nonalcoholic beverages internationally. The company provides flavoring ingredients, sweeteners, beverage ingredients, syrups, and powders for purified water products. Distribution is controlled by a network of owned or controlled operators and cooperation with independent bottling partners, distributors, wholesalers, and retailers. As of year-end 2015, company's revenues were approximately \$44.3 billion. Coca-Cola's sustainability

objectives focus on several areas which are (1) water stewardship; (2) sustainable packaging; (3) climate protection; and (4) sustainable agriculture ([Coca-Cola, 2015](#)).

Water Stewardship. Water is the primary ingredient for Coca Cola's products in manufacturing. The company continually focuses on ensuring the sustainability of local water sources by understanding the relationships to agriculture, water usage, and energy generation for all communities in which they operate. Coca-Cola's water initiatives are focused on aligning with the United Nation's Sustainable Development Goals (SDGs). These goals focus on safe drinking water, protecting communities, and ecosystems through good sanitation practices. One goal aligned to SDGs is water replenishment. Coca-Cola has a goal that by 2020, the company will return to local communities and the environment an amount of water equivalent used in finished beverages production. As of year-end 2014, the company estimates 94% of all finished production has resulted in the same amount of water provided back as a result of 209 community water partnership projects in 61 countries. Coca-Cola is also focused on improving water usage by 25% by 2020 in comparison to a 2010 baseline. Thus far, the company has improved water usage over the last 12 years through effective monitoring, noting that in 2014, Coca-Cola used an average of 2.03 liters of water for each liter of product produced, a 10% improvement since 2010, as the ultimate goal is 1.7 liters. Coca-Cola also used a company-wide water protection plan database to streamline tracking and reporting processes. By the end of 2014, all bottling plants prepared source water vulnerability assessments. Furthermore, the company continues to improve recycling and treatment of water, implementing full compliance for 99% of all manufacturing operations. Coca-Cola also promotes water

conservation with governments, communities, and partnerships with the World Wildlife Fund (WWF), United Nations Development Program (UNDP), and Nature Conservancy,

Sustainable Packaging. Another component of Coca-Cola's manufacturing operations is the packaging of beverages. The company strives to design more resource efficient packaging, support community recycling systems, and increase the use of renewable materials. The company's goal is to recycle 50% of bottles and cans in developed markets, for which the company has already estimated a 48% recovery rate as of the end of 2014. Part of the recovery resulted from a public-private funded recycling program involving 38 curbside recycling projects in the U.S. Coca-Cola also seeks to integrate recycled plastic material into packaging operations with a goal of having 25% as part of production for which they are halfway towards this goal. The company has developed new technology with existing plastic bottling package material, primarily polyethylene terephthalate (PET). In 2009, Coca-Cola created a specialized renewable PET material, called "PlantBottle", which replaces traditional fossil-based ingredients used to make a key ingredient in PET plastics. Due to this new packaging material, 630,000 barrels of oil have been saved. Coca-Cola is working towards the goal of incorporating 30% of this material into overall PET plastic bottle production by 2020 by creating manufacturing facilities that use this technology in local markets. As of year-end 2015, PlantBottle technology accounts for 26% of the company's packaging volume in North America and 7% globally, which makes Coca-Cola the world's largest consumer of bioplastics. Another method to improve sustainability in packaging is to reduce the weight of packaging, a process called "light-weighting". Coca-Cola reduced the weight of their 8-ounce glass bottle by more than 50% as well as their 12-ounce aluminum can

and 20-ounce PET plastic bottle by 30%. The light-weighting initiatives for all packaging resulted in significant financial and environmental impact reductions. In the past two years, light-weighting prevented the company from using 125,000 metric tons of primary packaging and reduced system costs by \$200 million.

Climate Protection. Efforts to reduce greenhouse gases run parallel to Coca-Cola's sustainability goals with many changes taking place in manufacturing processes, packaging, delivery fleet, refrigeration equipment, and sourcing of ingredients. To monitor and assist management in carbon footprint reduction, the company developed a Carbon Scenario Planner in 2014 to standardize a forecast methodology for carbon in the supply chain and to help regional targets. As of 2014, the company's global trucking fleet emitted 3.7 million metric tons of greenhouse gases. One of the new targets is to reduce 4% of trucking fleet emissions worldwide by adding trucks that can run on alternative fuels. Another goal is to put into service only hydrofluorocarbon (HFC) - free drink equipment coolers. Refrigeration is a major cause of carbon emissions and the largest for Coca-Cola. Due to the high global warming potential of HFCs, the company has decided to phase out the use of HFC refrigerants in cold-drink equipment across Coca-Cola's global value chain. As of 2014, approximately 300,000 units were put into service as replacement of existing equipment continues, as the total number of HFC coolers stands at 1.4 million. Coca-Cola's also has objectives to reduce manufacturing emissions from developed companies by 5% compared to the baseline year of 2004 as this has recently been achieved through working with bottling partners on energy saving / efficiency techniques, as two thirds of these manufacturing plants are implementing best practices. Through the usage of 5.6 million intelligent energy-management devices in

refrigeration equipment, savings has resulted in \$400 million annually and reducing emissions by 3.1 metric tons per year. Coca-Cola has made strides in exploring clean energy opportunities through the development of a Clean Energy Toolkit which examines clean energy investment opportunities from technical and financial perspectives so local teams can make informed decisions on potential investments. For example, Coca-Cola FEMSA Mexico, the company's largest independent bottler in the world, intends to source 85% of its manufacturing energy in Mexico from clean energy by 2020, and has begun engagement with wind farm developers. In Spain, all manufacturing sites use electricity from clean sources, such as wind, photovoltaic, solar, thermal, hydraulic and biomass. Coca Cola's Behavior-based Energy Efficiency (BEE) program, works towards transforming energy management practices at 900 plants through individual and group training on promoting behaviors on good sustainable energy saving practices, which involve basic tasks such as turning off equipment and conveyors when not in use, turning off the lights, repairing air and steam leaks and optimizing set points. This program is used as an assessment in comparison to existing energy management practices, employee behaviors, and identification of opportunities for improvement.

Sustainable Agriculture. Coca-Cola has also considered other key ingredients in its product lines, as 50% of company expenditures goes towards sugar cane and beet sugar, high fructose corn syrup, tea, coffee, palm oil, soy, oranges, lemons, grapes, apples, mangos, and pulp and paper fiber for packaging. Through the company's new Supplier Engagement Program, they are providing a framework which consist of several stages of improvement toward reaching compliance with their Sustainable Agriculture Guiding Principles (SAGPs). Suppliers are given information and guidance about

assessments, audits, measurement of progress, and validation of performance so that they can qualify for sustainability certification. Through this program, Coca-Cola aims to establish and maintain reliable, long-term relationships with suppliers, and support local sustainability in communities where the company's ingredients are grown and processed. For example, one objective is to support the development of sustainability sourced sugar. Coca-Cola has been working with global and local partners to increase the amount of sustainably sourced cane sugar, corn, and sugar beets processed into sweeteners used in their beverages. The work includes developing detailed regional supply chain plans. One of the globally recognized sustainability certifications for agricultural commodities Coca-Cola supports is a sugarcane production standard called Bonsucro. Bonsucro is a global non-profit, multi-stakeholder organization which fosters the sustainability of the sugar cane sector through its metric-based certification standards and its support of continuous improvement for its 400 member organizations from 32 countries. Coca-Cola has assisted suppliers in reaching the Bonsucro standard in 2014 by leading 5 workshops to provide information to bottling partners and suppliers on how to better sustainably source sugar cane around the world. Coca-Cola has assisted in developing action plans for suppliers in achieving not only this standards, but also SAGPs. The company has also partnered with other organizations, such as the World Wildlife Fund (WWF), TechnoServe, and the U.S. Agency for International Development (USAID) on how to help suppliers and producers test and refine new techniques and methods on increasing efficiency and crop yields for farmers. Ultimately Coca-Cola would like to achieve 100% sustainable sourcing of products through working with local farmers / suppliers, and creating partnerships with

food standards setting organizations, and partnering with agencies focused on improving environmental sustainability.

 2014/2015 Sustainability Report				Intro	Me	We	World	Reporting	Index
SPECIFIC STANDARD DISCLOSURES: ASPECTS									
Environmental									
GRI G4 MATERIAL ASPECT	DMA CROSS-REFERENCE		IMPACT WITHIN THE ORGANIZATION OR EXTERNAL?		RELEVANT EXTERNAL ENTITIES				
Water^A	Water, pp. 32-36		Both		Bottling Partners, Communities, Government, Investors, NGOs, Suppliers				
Effluents and Waste	Water, pp. 32-33		External		Bottling Partners, Communities, Government, NGOs				
Products and Services^A	Water, pp. 32-36 Packaging, pp. 37-41 Climate Protection, pp. 42-46 Agriculture, pp. 47-50		Both		Bottling Partners, Communities, Consumers, Customers, Government, Investors, NGOs				

SPECIFIC STANDARD DISCLOSURES: INDICATORS					
Economic					
GRI G4 MATERIAL ASPECT	INDICATOR	INDICATOR DESCRIPTION	INDICATOR CROSS REFERENCE	OMISSIONS AND EXPLANATIONS	UNGC CROSS-REFERENCE
Economic Performance	G4-EC1	Direct economic value generated and distributed.	Sustainable Communities, pp. 27-30 2014 Form 10-K, pp. 73-77, 132-133 2014 Operating Group Summaries 2014 Annual Review, pp. 8, 24, 26-27		
	G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	Climate Protection, pp. 43-44 2015 Climate Change CDP, 5.1, 6.1 2014 Form 10-K, pp. 12, 18, 33		Principle 7
Indirect Economic Impacts	G4-EC7	Development and impact of infrastructure investments and services supported.	Sustainable Communities, pp. 27-30 Water, pp. 35-36 Packaging, pp. 38-41 Agriculture, pp. 47-50		
	G4-EC8	Significant indirect economic impacts, including the extent of impacts.	Women's Economic Empowerment, pp. 16-19 Agriculture, pp. 47-50		
Environmental					
GRI G4 MATERIAL ASPECT	INDICATOR	INDICATOR DESCRIPTION	INDICATOR CROSS REFERENCE	OMISSIONS AND EXPLANATIONS	UNGC CROSS-REFERENCE
Energy	G4-EN3^A	Energy consumption within the organization.	Climate Protection, p. 45 2015 Climate Change CDP, 11.1-11.4		Principles 7, 8
	G4-EN5	Energy intensity.	Climate Protection, p. 45		Principle 8
	G4-EN6	Reduction of energy consumption.	Climate Protection, p. 45		Principle 8
Water	G4-EN8	Total water withdrawal by source.	Water, p. 33		Principles 7, 8
Emissions	G4-EN15^A	Direct greenhouse gas emissions	2015 Climate Change CDP, 7.1-7.4, 8.1-8.2	Reported for The Coca-Cola Company	Principles 7, 8

Source: [Coca-Cola 2014/2015 Sustainability Report](#)

Unilever. The company is a major manufacturer of consumer goods worldwide. Product lines include personal care (skin and hair products such as Dove, Lux), foods (Hellmann's, Knorr's), refreshments (Ben & Jerry's, Breyer's and Magnum ice creams, Lipton Tea), and home care products. Year end 2015 revenues were approximately \$53.3 billion. Unilever has developed several key sustainability strategies focused on internal and external objectives. Internal objectives related to (1) sustainability led growth and sourcing; (2) reducing waste, water usage, and greenhouse gases; and (3) innovation and collaboration. External objectives relate to partnership strategies ([Unilever, 2014](#)).

Internal Objectives

Sustainability-led growth. Unilever's sustainability report emphasizes some of its major brands have been marketed to customers to promote healthy, sustainable lifestyles, and that the products are produced in an environmentally friendly manner. For example, Unilever's Kissan ketchup product sold in India is marketed as containing 100% natural tomatoes sustainably grown by local suppliers. Also, community outreach efforts have been made to provide children and families by giving free tomato seeds and special shaped caps from Kissan bottles to be used for growing at home. In the U.S., Unilever is advertising frozen fruit bars by telling customers the product line is made with sustainably farmed fruit. The company also has a goal to source 100% of their agricultural raw materials sustainably by 2020, as 55% of agricultural raw materials have been sustainably sourced as of year-end 2014.

The company emphasizes the reduction of waste in energy and raw materials through cost cutting and more efficient energy saving processes. Since 2008, Unilever has been able to save €400 million due to more efficient manufacturing processes and

improved logistics. Examples include compacting washing powder, compressing deodorant sprays, lighter-weight, and smaller size packaging. Unilever cites a case in which warehousing management changed the way pallets were loaded into trucks, by adding two extra pallets per delivery, which has led to lower transportation costs and greenhouse gas emissions. The company's waste management goal is to achieve zero non-hazardous waste to landfill across all manufacturing plants by the end of 2014. This goal is ongoing and thus far more than 140,000 tons of waste has avoided landfill disposal through recycling practices. The company emphasizes the use of eco-packs, concentrated laundry liquids which can be placed into pouches. Eco-packs use 70% less plastic and reduce greenhouse gas impacts by 50-85% per consumer use. Most consumers appreciate the packaging and environmental focus for Unilever's detergent product line. Unilever estimates eco-packs in China has already saved €2.5 million and 940 tons of plastic. Efforts have been made to reduce consumer water use for products sold. Water accounts for 15% of agricultural products used in production, whilst 85% of water use relates to the customer use of water in combination with Unilever hair, skin, and laundry products. Globally, Unilever estimates its absolute water footprint with consumers to be 7 billion m³ with a water impact of their products to be 15 liters per consumer use. Strategies to lower this footprint include educating consumers on new products which require less water for cleaning floors and clothes, purifying products for drinking waters, and community based competitions to promote water conservation. Unilever has taken steps to reduce water use and improve efficiencies in manufacturing through initiatives, which include building an advanced water treatment plant, factory processes related to condensate capture and reuse, efficient cleaning systems, waterless

urinals, low flow taps and showers, and rainwater harvesting. These initiatives are in place to reduce water use and increase recycling rates to 70% as new factory targets are set at a 50% reduction in water per ton of production against a 2008 baseline.

Sustainable innovation & collaboration. Unilever is also counting on new and future technologies for products that are sustainable in nature and can offer more to consumers. For example, the company has developed a new soap containing an active natural ingredient (Lifebuoy with Activ Natural Shield (ANS) which offers better protection against bacteria that can cause stomach infections, typhoid, cholera, combats skin and eye infections. Unilever is also starting to use new, compressed aerosol cans for deodorants which use half the propellant gas and 25% less aluminum, thus saving over 16,000 tons of carbon dioxide emissions.

External Objectives

Eliminating Deforestation. Unilever is also active as an external agent of change in improving environmental conditions worldwide. Ten years ago, the company became a founding member of the Roundtable on Sustainable Palm Oil (RSPO) to change the palm oil industry which was driving deforestation in some regions of the world. RSPO's aim is to develop and implement global standards for sustainable palm oil. The entity has 2,000 members, representing 40% of all palm oil produced in the world, and already 18% of global palm oil meets RSPO standards. The company is also actively working with suppliers. In 2013, the company signed a Memorandum of Understanding with Wilmar, a key supplier and Asia's leading agribusiness group which represents one third of the global palm oil market. The basis of the agreement is that Wilmar's palm oil plantations will only provide products free from links to deforestation and human rights abuses.

Other suppliers, such as Cargill and Musim Mas, have recently committed to non-deforestation policies. Unilever also focuses on supporting international deforestation causes organized by the United Nations. A 2014 UN Climate Summit concluded with participant wide endorsements and pledges to halve deforestation by 2020, end it by 2030, and restore 350 million hectares of degraded forest. This pledge was endorsed by Unilever along with 175 organizations and many countries. The company also works in partnership with other organizations to reduce deforestation, which include the Tropical Forest Alliance (TFA), created with the U.S. government, as well as several European, Asian, and African governments, as well as many non-profit organizations.

Health and Nutrition for Farmers and Communities. Unilever is working with small farmers internationally to ensure they and their families stay healthy through good nutrition and hygiene. The company partnered with the Global Alliance for Improved Nutrition (GAIN), a global program to help improve the health and nutrition of 2.5 million people living in rural communities. Unilever's Nutrition Intervention Program (NIP) aims to reach farmers part of the global supply chain, specifically focusing on female farmers, pregnant women and children to prevent nutrition in poor communities. Unilever has also partnered with Solidaridad to improve the livelihood of 1 million people part of the extended global supply chain. Solidaridad is an international civil society organization with 40+ years of experience facilitating the development of socially responsible, ecologically sound and profitable supply chains. Both organizations work together on projects that engage over 150,000 farmers and workers. The program's regional focus are countries in Africa, Latin America and Asia with the goals to find

ways to encourage farmers to grow sustainable tea, cocoa, sugar, palm oil, fruit, vegetables, soy and dairy by providing training, new finance models, and seed funding.

Community Access to Water, Sanitation and Hygiene. Unilever emphasizes that globally, 2.5 billion people lack access to adequate sanitation facilities. The company is continuously working to promote greater community and government awareness on the need to provide access to clean water and implement good hygiene practices. For example, Unilever is supporting the Indian government's ambition to have a toilet in every home by 2019 through the company's Domex (Domestos) Toilet Academies. This is a market-based model that improves sanitation in India and Vietnam by training entrepreneurs to form businesses supplying, installing and maintaining hygienic toilets. The aim is to train 250 entrepreneurs and support the installation of 51,000 toilets by 2015. The company was also involved in launching a Toilet Board Coalition, bringing together businesses, non-profit organizations, universities, and social entrepreneurs in order to develop commercially-scalable sanitation solutions. In another instance, Unilever partnered with an entity to improve the market availability of its Lifebuoy soap and handwashing education by working with the Children's Investment Fund Foundation (CIFF). The aim of this partnership is to reach 9 million children in Bihar, India with the handwashing education program, as Bihar has one of the highest levels of infant mortality in India. Unilever also emphasizes in its sustainability report that over 2 billion people have poor or no access to safe drinking water. The company's Pureit in-home water purifier provides drinking water "as safe as boiled" without the need for gas, electricity or a pressurized water supply. Pureit removes harmful viruses, bacteria, parasites and pesticide impurities. Its unique technology is priced to appeal to low-income consumers,

as the ongoing running cost of Unilever's most affordable model is one Euro cent for approximately two liters of safe drinking water. The product is available in 12 countries and achieving an annual growth rate of 20% as of 2014. Through acquisition of a leading Chinese water purification business (Qinyuan), Unilever is poised to double their size in the water purification sector to supply more consumers with water purification products.

USLP Indicator	Reported performance	EOS Indicator	Reported performance
Health & Hygiene: • Reduce diarrhoeal and respiratory disease through handwashing.	• 257 million people reached by Lifebuoy handwashing programme since 2010, of whom 74 million were reached in 2014.	Water: • Change in the volume of water in m3 abstracted in 2014 (1 October 2013 to 30 September 2014) compared to 2008 (1 January 2008 to 31 December 2008). • Water abstracted in m3 per tonne of production. • Emissions of COD (chemical oxygen demand) in kg per tonne of production.	• 16 million fewer m ³ of water abstracted in 2014 than in 2008 (a reduction of 32% per tonne of production). • 2.01 m ³ /tonne. • 1.10 kg/tonne.
Health & Hygiene: • Provide safe drinking water.	• 56 billion litres of safe drinking water provided since 2010, of which 13 billion litres were provided in 2014.	Energy and greenhouse gas emissions: • Change in the tonnes of CO ₂ from energy use in 2014 (1 October 2013 to 30 September 2014) compared to 2008 (1 January 2008 to 31 December 2008). • Energy use in gigajoules per tonne of production. • CO ₂ emissions from energy use in tonnes. • CO ₂ emissions from energy use in kg per tonne of production.	• 935,000 fewer tonnes of CO ₂ from energy use in 2014 than in 2008 (a reduction of 37% per tonne of production). • 1.41 GJ/tonne. • 1,850,837 tonnes. • 92.02 kg/tonne.
Nutrition (pillar commitment): • Helping people to achieve healthier diets.	• 33% of our portfolio by volume met the highest nutritional standards, based on globally recognised dietary guidelines.	Waste: • Change in the tonnes of total waste sent for disposal in 2014 (1 October 2013 to 30 September 2014) compared to 2008 (1 January 2008 to 31 December 2008). • Hazardous waste in kg per tonne of production. • Non-hazardous waste in kg per tonne of production. • Total waste sent for disposal per tonne of production	• 127,000 fewer tonnes of total waste sent for disposal in 2014 than in 2008. This represents an 85% reduction per tonne of production. • 0.07 kg/tonne. • 1.12 kg/tonne. • 1.19 kg/tonne.
Greenhouse gases (GHG) (pillar commitment): • Halve the greenhouse gas impact of our products across the lifecycle by 2020.	• 4% increase in the greenhouse gas impact of our products across the lifecycle against 2010 re-baseline.	Occupational safety: • Number of fatal accidents. • Accident rate: Total Recordable Frequency Rate (TRFR) per 1,000,000 man hours.	• 4 fatalities in the year to 30 September 2014. • 1.05 accidents per 1 million hours in the year worked to 30 September 2014.
Water (pillar commitment): • Halve the water associated with the consumer use of our products by 2020.	• 2% decrease against 2010 re-baseline.		

Unilever Performance Indicators/Results– Source: [Unilever Sustainable Living Plan 2014](#)

Conclusions and Guidelines for Utilizing a Comprehensive Set of Reporting Frameworks

Per review of all four company sustainability reports, environmental performance metrics are well illustrated, with numerous examples of the status of strategic goals and results. Presentations of all reports reviewed provide insightful information. One good illustration of how GRI reporting guidelines are followed can be viewed in Appendix D, which demonstrates Exxon's issue identification, prioritization, and goals to address the company's material impacts to communities and the environment. Based on companies selected and reviewed, the corporate CFO should consider combining SASB ([SASB, 2016](#)) and GRI ([GRI, 2016](#)) implementation guides in order for reporting to include the informational needs for both investors and stakeholders. Review of Appendix A (SASB Standards Navigator) provides an illustration for a specific industry (non-alcoholic beverages) in terms of the sustainability topic and potential metrics to use as baseline indicators and target setting. Review of Appendix B (GRI Disclosures Framework) provides a sample of several sustainability areas, with a specific illustration on reporting metrics for energy.

Appendix A – SASB Standards Navigator

Sample Data – Non-Alcoholics Beverages – Sustainability Metrics Guidance

Source: <https://navigator.sasb.org/>

	Topic	Description	Dimension	
	Energy & Fleet Fuel Management	Companies in the Non-Alcoholic Beverages industry rely on purchased electricity and fuel as critical inputs for manufacturing and transporting finished products to consumers. Consumption of fossil fuels and electrical energy can contribute to environmental impacts, including climate change and pollution. These impacts have the potential to affect the value of companies in this industry, as greenhouse gas (GHG) emission regulations and new incentives for energy efficiency and renewable energy could lead to increased price volatility for fossil fuels and conventional electricity while making alternative sources cost-competitive. Companies that manage their overall energy use through increased manufacturing and transportation efficiencies and use of alternative energy sources can increase profitability by lowering expenses and reducing risk.	Environment	
Accounting Metric	Category		Unit	Code
Operational energy consumed, percentage grid electricity, percentage renewable	Quantitative		Gigajoules (GJ), Percentage (%)	CN0201-01
Fleet fuel consumed, percentage renewable	Quantitative		Gigajoules (GJ), Percentage (%)	CN0201-02
	Topic	Description	Dimension	
	Water Management	Water management relates to a company's direct water usage, the exposure of its operations to water-scarce regions, and its management of wastewater. Companies in the Non-Alcoholic Beverages industry use a large amount of water in their operations, as they combine water with raw ingredients to create finished products. Because non-alcoholic beverage companies rely heavily on access to a large volume of clean water and water stress is increasing in different regions globally, companies may be exposed to supply disruptions that could significantly impact operations and add to costs. Companies operating in water-stressed regions that fail to address local water concerns may face further risk of losing their social license to operate. Additionally, proper wastewater treatment is an important element of managing water issues in operations, since bottling plants release large quantities of effluents. Improving water management through increased efficiency, recycling, and proper disposal, particularly in regions with baseline water stress, can lead to lower operating costs, reduced risks, and higher intangible asset value.	Environment	

Accounting Metric	Category	Unit	Code
(1) Total water withdrawn and (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Cubic meters (m ³), Percentage (%)	CN0201-03
Discussion of water management risks and description of management strategies and practices to mitigate those risks	Discussion & Analysis	n/a	CN0201-04
	Topic	Description	Dimension
	Health & Nutrition	The Health & Nutrition issue relates to key nutritional and health concerns such as obesity, ingredient safety, nutritional content, and acute health impacts resulting from the consumption of non-alcoholic beverages. Beverage manufacturers recognize the risk of consumers' evolving preferences and increased awareness of product health consequences. Studies indicate that consuming high-calorie sugar-sweetened beverages can have adverse health consequences including higher levels of cholesterol, increased risk for heart disease, and obesity. Findings such as these can alter consumer perceptions of the industry's products, leading to long-term shifts in purchasing decisions. Furthermore, efforts to reduce obesity, in the form of new regulations or taxes on sugar-sweetened beverages, have the ability to influence industry profitability and future demand. The potential adverse health effects of other specific ingredients pose additional concerns, and companies may face related lawsuits. Opportunities exist in new segments of the beverage market that address consumers' demand for improved nutritional value. Companies that address the increasingly important issue of product nutritional value and health impacts by offering healthier alternatives and ensuring product safety can capture additional market share and limit their exposure to regulation and litigation.	Social Capital
Accounting Metric	Category	Unit	Code
Revenue from (1) zero- and low-calorie, (2) no-added-sugar, and (3) artificially sweetened beverages	Quantitative	U.S. Dollars (\$)	CN0201-05
Description of the process to identify and manage products and ingredients of concern and emerging dietary preferences	Discussion & Analysis	n/a	CN0201-06

	Topic	Description	Dimension	
	Product Labeling & Marketing	In their advertising and marketing practices, companies in the Non-Alcoholic Beverages industry routinely make claims related to the health benefits of specific ingredients and products, which may at times be misleading or untruthful. The trend toward promoting health benefits is likely to increase as the market for healthier beverages continues to expand. These claims can result in litigation or regulatory action that may impact operations and company reputations. Companies in the industry are also subject to criticism and regulation surrounding marketing to children, especially in the U.S., where childhood obesity is rapidly increasing. In response to these concerns, companies have launched new initiatives to voluntarily monitor and control advertising toward children. Additionally, new laws and regulations surrounding the use and labeling of genetically modified organisms (GMOs) may play an increasing role in the industry, as some of the ingredients used in non-alcoholic beverages may be genetically modified. Although the health and environmental impacts of GMOs remain the topic of debate and scientific inquiry, the issue can still influence consumers' purchasing decisions and create pressure on governments to introduce related laws. Failure to manage marketing and labeling can lead to impacts on brand value, reduced market share, and increased expenses and liabilities.	Social Capital	
Accounting Metric	Category		Unit	Code
Number of child advertising impressions made, percentage promoting products meeting the Children's Food and Beverage Initiative (CFBAI) Uniform Nutrition Criteria	Quantitative		Number (#), Percentage (%)	CN0201-07
Revenue from products labeled as (1) containing genetically modified organisms (GMOs) and (2) non-GMO	Quantitative		U.S. Dollars (\$)	CN0201-08
Notices of violations received for non-conformance with regulatory labeling and/or marketing codes	Quantitative		Number (#), Percentage (%)	CN0201-09
Amount of legal and regulatory fines and settlements associated with labeling and/or marketing practice	Quantitative		U.S. Dollars (\$)	CN0201-10

	Topic	Description	Dimension	
	Packaging Lifecycle Management	Packaging materials represent a significant cost to companies in the Non-Alcoholic Beverages industry. Although many non-alcoholic beverage companies do not manufacture their own bottles and packaging, they face the reputational risks associated with the negative externalities that their products' containers can create over their lifecycle. Companies are also directly impacted by legislation regarding end-of-life management of beverage containers. Non-Alcoholic beverage companies therefore have an incentive to work with packaging manufacturers to improve the environmental characteristics of their products. In the design phase, materials choice can help drive consumer demand, reduce environmental impacts, and mitigate risks associated with end-of-life regulations. Furthermore, efforts to reduce the amount of materials used in packaging can reduce transportation costs, exposure to supply and price volatility of key materials, and the amount of virgin materials extracted. In the end-of-life phase, take-back and recycling programs and partnerships can pre-empt regulation, help achieve cost savings, and reduce environmental impact. Companies that effectively manage this issue can improve profitability and reduce cost of capital.	Business Model and Innovation	
Accounting Metric	Category		Unit	Code
(1) Total weight of packaging, (2) percentage made from recycled or renewable materials, and (3) percentage that is recyclable or compostable	Quantitative		Metric tons (t), Percentage (%)	CN0201-11
Description of strategies to reduce the environmental impact of packaging throughout its lifecycle	Discussion & Analysis		n/a	CN0201-12
	Topic	Description	Dimension	
	Environmental & Social Impacts of Ingredient Supply Chains	Environmental and social impacts can occur within non-alcoholic beverage companies' ingredient supply chains. Companies rely on numerous ingredients that are highly susceptible to price volatility, largely due to environmental factors such as shifting weather patterns, droughts, and crop disease. As the impacts of climate change and water scarcity continue to increase in frequency and severity, the price and availability of these key ingredients are likely to become increasingly unstable. Furthermore, the environmental impacts caused by supplying these ingredients, including pollution, soil erosion, and deforestation, are likely to lead to additional price volatility. The potential for supply shortages or disruptions due to social considerations, including labor violations, child labor, fair wages, and food shortages, present further risk to a company's long-term ability to source key materials and ingredients. Companies that proactively implement programs to address these risks through active management, measurement, and engagement with key suppliers and farmers can build more resilient supply chains. These companies could limit the price volatility of key ingredients and increase their availability while improving brand reputation, leading to increased market share and reduced costs.	Leadership and Governance	

Accounting Metric	Category	Unit	Code
Percentage of beverage ingredients sourced from regions with High or Extremely High Baseline Water Stress	Quantitative	Percentage (%) by spend	CN020 1-13
Suppliers' social and environmental responsibility audit conformance: (1) major non-conformance rate and associated corrective action rate and (2) minor nonconformance rate and associated corrective action rate	Quantitative	Rate	CN020 1-14
<u>List of priority beverage ingredients and discussion of sourcing risks due to environmental and social considerations</u>	Discussion & Analysis	n/a	CN020 1-15

Appendix B – GRI Reporting Guidance and Sample Reporting Guidance

Source: <https://www.globalreporting.org/resource/library/GRIG4-Part2-Implementation-Manual.pdf>

G4 SPECIFIC STANDARD DISCLOSURES OVERVIEW									
DISCLOSURES ON MANAGEMENT APPROACH									
G4-DMA									
Indicators by Aspects									
CATEGORY: ECONOMIC									
Economic Performance OECD									
G4-EC1	G4-EC2	G4-EC3	G4-EC4						
Market Presence									
G4-EC5	G4-EC6								
Indirect Economic Impacts									
G4-EC7	G4-EC8								
Procurement Practices									
G4-EC9									
CATEGORY: ENVIRONMENTAL									
Materials OECD/UNGC									
G4-EN1	G4-EN2								
Energy									
G4-EN3	G4-EN4	G4-EN5	G4-EN6	G4-EN7					
Water									
G4-EN8	G4-EN9	G4-EN10							
Biodiversity									
G4-EN11	G4-EN12	G4-EN13	G4-EN14						
Emissions									
G4-EN15	G4-EN16	G4-EN17	G4-EN18	G4-EN19					
G4-EN20	G4-EN21								
Effluents and Waste									
G4-EN22	G4-EN23	G4-EN24	G4-EN25	G4-EN26					
Indicators by Aspects									
CATEGORY: ENVIRONMENTAL									
Products and Services OECD/UNGC									
G4-EN27	G4-EN28								
Compliance									
G4-EN29									
Transport									
G4-EN30									
Overall									
G4-EN31									
Supplier Environmental Assessment									
G4-EN32	G4-EN33								
Environmental Grievance Mechanisms									
G4-EN34									
CATEGORY: SOCIAL									
LABOR PRACTICES AND DECENT WORK									
Employment OECD/UNGC									
G4-LA1	G4-LA2	G4-LA3							
Labor/Management Relations UNGC									
G4-LA4									
Occupational Health and Safety OECD									
G4-LA5	G4-LA6	G4-LA7	G4-LA8						
Training and Education OECD									
G4-LA9	G4-LA10	G4-LA11							
Diversity and Equal Opportunity									
G4-LA12									
Equal Remuneration for Women and Men									
G4-LA13									
LEGEND									
	Specific Standard Disclosures	OECD	Linkage to OECD Guidelines for Multinational Enterprises	UNGC	Linkage to UN Global Compact 'Ten Principles'				

GRI – Sample Reporting Guidance Area - Energy

Aspect: Energy

If this Aspect has been identified as material, the Guidelines make the following Standard Disclosures and Guidance available:

Overview*

DISCLOSURES ON MANAGEMENT APPROACH

G4-DMA

Guidance: Generic DMA pp. 64-65; **Aspect-specific** p. 88

INDICATORS

G4-EN3

Energy consumption within the organization

Guidance pp. 89-90

G4-EN4

Energy consumption outside of the organization

Guidance pp. 91-92

G4-EN5

Energy intensity

Guidance p. 93

G4-EN6

Reduction of energy consumption

Guidance p. 94

G4-EN7

Reductions in energy requirements of products and services

Guidance p. 95

*All page numbers in this overview refer to the *Implementation Manual*.

GUIDANCE - DISCLOSURES ON MANAGEMENT APPROACH



Aspect-specific Guidance for G4-DMA-b.

Describe whether the organization is subject to any country, regional, or industry regulations and policies for energy. Provide examples of such regulations and policies.

Indicators

G4-EN3

ENERGY CONSUMPTION WITHIN THE ORGANIZATION

- a. Report total fuel consumption from non-renewable sources in joules or multiples, including fuel types used.
- b. Report total fuel consumption from renewable fuel sources in joules or multiples, including fuel types used.
- c. Report in joules, watt-hours or multiples, the total:
 - Electricity consumption
 - Heating consumption
 - Cooling consumption
 - Steam consumption
- d. Report in joules, watt-hours or multiples, the total:
 - Electricity sold
 - Heating sold
 - Cooling sold
 - Steam sold
- e. Report total energy consumption in joules or multiples.
- f. Report standards, methodologies, and assumptions used.
- g. Report the source of the conversion factors used.

GUIDANCE

Relevance

Energy consumption has a direct effect on operational costs and can increase exposure to fluctuations in energy supply and prices. The environmental footprint of an organization is shaped in part by its choice of energy sources. Changes in the balance of these sources can indicate the organization's efforts to minimize its environmental impacts.

For some organizations, electricity is the only significant form of energy they consume. For other organizations, other energy sources might also be important, such as steam or water provided from a district heating plant or chilled water plant.

The consumption of non-renewable fuels is usually the main contributor to direct greenhouse gas (GHG) emissions (Scope 1), which are reported in Indicator G4-EN15. The consumption of purchased electricity, heating, cooling, and steam contributes to an organization's energy indirect (Scope 2) GHG emissions, which are reported in Indicator G4-EN16.

Compilation

Identify the types of energy (fuel, electricity, heating, cooling, and steam) consumed within the organization.

Identify the amount of energy (fuel, electricity, heating, cooling, and steam) consumed within the organization, in joules or multiples.

When reporting self-generated energy consumption, the organizations does not double-count fuel consumption. For example, if an organization generates electricity from coal and then consumes the generated electricity, the energy consumption is counted once under the fuel consumption.

Energy may be purchased from sources external to the organization or produced by the organization itself (self-generated). Only energy consumed by entities owned or controlled by the organization is expected to be reported in this Indicator.

Fuel

Report fuel consumption separately for non-renewable and renewable fuel sources as follows:

- Non-renewable fuel sources include fuel for combustion in boilers, furnaces, heaters, turbines, flares, incinerators, generators and vehicles, which are owned or controlled by the organization. Non-renewable fuel sources cover fuels purchased as well as fuels generated by the organization's

↓ G4-EN3 CONTINUED

activities, such as mined coal and gas from oil and gas extraction

- Renewable fuel sources are sources owned or controlled by the organization, including biofuels (purchased for direct use) and biomass

Electricity, heating, cooling, and steam

Using the identified types of energy purchased for consumption and self-generated, calculate the total energy consumption within the organization in joules or multiples using the following formula:

$$\begin{aligned} &\text{Total energy consumption within the organization} \\ &= \\ &\quad \text{Non-renewable fuel consumed} \\ &\quad + \\ &\quad \text{Renewable fuel consumed} \\ &\quad + \\ &\quad \text{Electricity, heating, cooling and steam purchased for consumption} \\ &\quad + \\ &\quad \text{Self-generated electricity, heating, cooling and steam} \\ &\quad - \\ &\quad \text{Electricity, heating, cooling and steam sold} \end{aligned}$$

Organizations are expected to report standards, methodologies, and assumptions used to calculate and measure energy consumption, with a reference to the calculation tools used. Organizations subject to different standards and methodologies should identify the approach to selecting them.

Organizations are expected to apply conversion factors consistently for all data reported under the Energy Aspect. Local conversion factors to convert fuel to joules, or multiples, are to be used when possible. When local conversion factors are unavailable, the generic conversion factors may be used.

Organizations are expected to select a consistent Boundary for energy consumption. When possible, the Boundary should be consistent with the Boundary used in Indicators G4-EN15 and G4-EN16.

Organizations may further disaggregate energy consumption data where this aids transparency or comparability over time. For example, they may disaggregate data by:

- Business unit or facility
- Country
- Source type (See Definitions for the listing of non-renewable and renewable energy sources)
- Activity type

Definitions

See Glossary in *Implementation Manual*, p. 244

- Non-renewable energy sources
- Renewable energy sources

Documentation sources

Potential sources of information include invoices, measurements or calculations, or estimations. The reported units may be taken directly from invoices or meters, or converted from the original units to the reported units.

Appendix C – The Corporate Knights – 12 Key Performance Indicators Global 100

Source: <http://www.corporateknights.com/reports/2014-global-100/key-performance-indicators-13903955/>

The Corporate Knights - 12 Key Indicators for Global 100 - Methodology	
<p>Energy productivity - In just about every jurisdiction on Earth, energy costs are rising. Prices are also becoming much more volatile, making it more difficult for companies to manage their energy strategy. This metric looks at how much revenue companies can squeeze out of every unit of energy they use, and shows which companies are best able to adapt to our changing energy future.</p> <p>Equation: Revenue (\$US) / Energy use (Gigajoules)</p>	<p>Carbon productivity - Greenhouse gas (GHG) emissions are increasingly being priced and regulated, creating new types of financial costs and benefits for affected companies. This metric divides a company's total revenue by total GHG emissions, and gives us a sense of how companies are exposed to the new GHG regulatory environment.</p> <p>Equation: Revenue (\$US) / GHG (Greenhouse gas protocol Scopes 1 +2)</p>
<p>Water productivity - For far too long, water has been an afterthought in conventional business planning. Not any more. Water scarcity has become a bona fide board room issue, especially in heavy industries such as Mining. This indicator divides revenue by water withdrawal, providing a first level measure of how well-positioned companies are to respond to water scarcity challenges.</p> <p>Equation: Revenue (\$US) / Water withdrawal (cubic metres)</p>	<p>Waste productivity - While less financially relevant than energy, carbon or water, waste is an increasingly important environmental indicator in its own right. With tightening disposal standards, growing land use pressures and rising transportation costs, smart companies are finding ways to recycle their waste stream, creating additional revenues and reducing costs. This metric divides revenue by total non-recycled waste, and helps identify companies that are managing their waste intelligently.</p> <p>Equation: Revenue (\$US) / Non-recycled/reused waste generated (metric tonnes)</p>
<p>Innovation capacity - In many industries, markets are won and lost based on knowledge resources, including a pipeline to channel ideas into new products and services. This metrics looks at the amount of money companies are investing in R&D as a percentage of their revenue. It is one of several measures that can be used to identify knowledge champions.</p> <p>Equation: R&D Expenses / Revenue</p>	<p>Percentage tax paid - Authorities are increasingly eliminating loopholes that allow corporations to legally circumvent their tax obligations, and resulting changes to the tax code can hit companies hard. The metric measures the amount of tax that companies pay out as a percentage of their EBITDA (for financial services companies, operating income). Companies that perform favourably on this metric may be better positioned to withstand the tightening of global tax policy.</p> <p>Equation: Cash tax / EBITDA (for financial services companies, operating income)</p>
<p>CEO to average worker pay - Employee morale and productiveness can be adversely affected if the gap between employee and CEO remuneration is unusually large relative to industry norms, especially in an age of rising competition for human capital. This metric compares total CEO compensation to average employee compensation, and identifies companies with a horizontally integrated remuneration framework.</p> <p>Equation: Total CEO Compensation / (Total wagebill / Number of employees)</p>	<p>Pension fund status - Corporate pension plans – including defined benefit and defined contribution plans – can play an important role in attracting and retaining top employees. An underfunded corporate plan, or the absence of a plan in an industry or country where corporate plans are common, can have deleterious effects on corporate competitiveness. Analyzes performance of corporate pension plans by dividing a plan's unfunded liabilities by market capitalization.</p> <p>Equation: (Defined benefit pension plan assets – defined benefit pension plan obligations) / total assets OR defined contribution expense / total assets</p>
<p>Safety performance - Companies with an unusually high number of fatalities or an abnormally high lost time injury rate compared to sector norms could be suffering from inadequate management systems, or poor management focus. This metric helps identify companies with best-in-class health & safety performance.</p> <p>Equation: Number of fatalities (absolute) and number of lost time incidents (per 200,000 employee hours)</p>	<p>Employee turnover - This metric measures employee turnover, which refers to the rate at which companies lose their employees. A high rate of employee turnover relative to industry norms can signal an inadequate human capital strategy, which can reduce corporate profitability.</p> <p>Equation: Number of departures / Average total employees</p>
<p>Leadership diversity - This metric measures the gender diversity of a company's board of directors and senior management team. A growing body of evidence suggests that diverse boards and management teams can have positive effects on a company's financial and stock price performance.</p> <p>Equation: Female representation on the Board of Directors and Executive Management team</p>	<p>Clean capitalism pay link - This metric singles out companies that have a link between their sustainability performance and the remuneration of their senior executives. This test can help identify companies that incentivize management support of sustainability commitments and performance targets.</p> <p>Equation: Mechanisms that link Executive Management compensation to corporate sustainability performance</p>

Appendix D – ExxonMobil: Highlighted Key Environmental Indicators and Performance Factors

Source: <http://corporate.exxonmobil.com/en/community/corporate-citizenship-report>

Materiality

A key step in developing this *Corporate Citizenship Report* is ensuring the content reflects ExxonMobil's most material issues. According to IPIECA, the global oil and gas industry association for environmental and social issues, material issues for sustainability reporting are those that, in the view of both the company's management and its external stakeholders, have the potential to affect sustainability performance significantly. We outline our materiality process below.

1

Issue identification

We used the following sources to identify the list of potential material issues:

- International reporting guidelines
- Topics covered in previous reports
- Feedback on the 2013 report from both internal and external stakeholders
- Customer and investor questionnaires
- Current legislation
- Public debate issues
- Online and media coverage

2

Issue prioritization

We then prioritized the identified issues by rating each on the following criteria:

- Frequency that stakeholders raised the issue
- Presence in the public domain
- Occurrence under international standards and frameworks
- Coverage by our industry and peers
- Online and media coverage
- Strategic importance to ExxonMobil
- Future business opportunities and challenges

3

2014 material issues

We identified the following issues as the most material and discussed each in this report:

Safety, health and the workplace

- Emergency preparedness and response
- Employee benefits
- Employment practices
- Personnel safety
- Process safety
- Product safety and responsibility
- Product transportation safety
- Retention and engagement
- Training and development
- Workplace security
- Worksite health and wellness

Environmental performance

- Air quality
- Biodiversity and ecosystem services
- Environmental compliance
- Spill performance
- Water

Managing climate change risks

- Climate change policy and planning
- Energy use/efficiency
- Greenhouse gas emissions

Community and social impact

- Community relations
- External stakeholder engagement
- Human rights
- Indigenous peoples

Local development and supply chain management

- Economic impacts and development
- Supply chain management

Corporate governance

- Board leadership
- Ethics and integrity
- Executive compensation
- Political advocacy and contributions
- Shareholder relations/returns
- Transparency

Business operations (included throughout report)

- Arctic operations
- Canadian oil sands
- Energy future
- Management systems
- Offshore drilling
- Unconventional oil and gas operations

Performance data

We are committed to continual improvement in all our corporate citizenship focus areas. This means we assess our performance at many levels of the organization, from individual operational sites to the business lines. We provide data interpretations where we consider the performance trend to be generally desirable (green), undesirable (red) or mixed (yellow) for applicable data. For certain metrics, no interpretation is necessary. For other metrics, we interpret trends based on performance over a multi-year period and consider other factors in our assessments, such as production volumes and economic climate. We conduct much of this detailed analysis at the operational level. When we see unfavorable trends at any level, we identify them and aim to correct underlying causes. Starting in 2011, performance data include XTO Energy information.

Citizenship data table

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Interpretation	Page #
Safety, health and the workplace*												
Fatalities — employees	3	3	0	0	4	0	0	1	0	0	■	13
Fatalities — contractors	5	7	8	5	4	3	9	4	6	3	■	13
¹ Fatal accident rate — total workforce (per 1,000,000 work hours)	0.017	0.021	0.018	0.011	0.017	0.006	0.017	0.010	0.011	0.006	■	N/A
² Lost-time incident rate — employees (per 200,000 work hours)	0.069	0.050	0.031	0.054	0.043	0.048	0.064	0.041	0.050	0.032	■	N/A
² Lost-time incident rate — contractors (per 200,000 work hours)	0.054	0.052	0.065	0.049	0.040	0.031	0.086	0.049	0.041	0.030	■	N/A
² Lost-time incident rate — total workforce (per 200,000 work hours)	0.061	0.051	0.048	0.051	0.041	0.038	0.077	0.046	0.044	0.030	■	13
² Total recordable incident rate — employees (per 200,000 work hours)	0.39	0.33	0.33	0.37	0.32	0.25	0.30	0.25	0.22	0.19	■	N/A
² Total recordable incident rate — contractors (per 200,000 work hours)	0.45	0.43	0.43	0.49	0.39	0.34	0.41	0.37	0.32	0.29	■	N/A
² Total recordable incident rate — total workforce (per 200,000 work hours)	0.42	0.39	0.38	0.43	0.36	0.30	0.37	0.33	0.28	0.26	■	13
Number of process safety Tier 1 events (API RP 754 guidance)	NA	NA	NA	NA	69	62	70	63	62	65	■	14
³ Number of regular employees at year end, thousands	84	82	81	80	81	84	82	77	75	75		18
⁴ Percent of workforce — outside the United States	63	63	63	63	63	60	61	59	59	58		18
⁴ Percent women — global workforce	23	24	25	25	26	26	26	28	28	28	■	18
Percent management and professional new hires — women	42	41	38	39	38	40	44	39	39	40	■	19
Percent management and professional new hires — outside the United States	70	72	71	69	63	70	79	68	66	61		N/A
Number of non-unique employee participants in corporate and technical training, thousands	51	52	35	48	52	61	65	76	87	79		19
Total corporate and technical training expenditures, millions of dollars	52	60	61	69	71	77	80	88	96	117		19
Environmental performance*												
⁵ Number of acres of managed wildlife habitat	220	370	370	370	380	6,400	6,900	7,000	7,000	7,200	■	26
Freshwater consumption, millions of cubic meters	NA	NA	320	350	340	330	370	330	280	270	■	27
Freshwater intensity, metric tons of water consumed per metric tons of throughput or production												
Upstream	NA	NA	0.07	0.08	0.09	0.10	0.26	0.26	0.22	0.17	■	N/A
Downstream	NA	NA	0.81	0.90	0.85	0.87	0.88	0.82	0.74	0.74	■	N/A
Chemical	NA	NA	2.36	2.56	2.46	2.41	2.64	2.41	1.98	1.79	■	N/A
Marine vessel spills (owned and long-term leased), number of hydrocarbon spills > 1 barrel	0	0	0	0	0	0	0	0	0	1	■	29
Spills (not from marine vessels), number of oil, chemical and drilling fluid spills > 1 barrel	370	295	253	211	242	210	484	356	330	335	■	29
Hydrocarbons spilled (oil spilled), thousands of barrels	11.5	35.3	7.5	20.3	17.4	7.7	17.8	8.5	11.1	9.1	■	29

Our corporate citizenship reporting is guided by our materiality process (see page 70), through which we determine the most important issues to our stakeholders and our business. Our reporting is also consistent with the International Petroleum Industry Environmental Conservation Association (IPIECA), the International Oil and Gas Producers Association (IOGP) and the American Petroleum Institute (API) *Oil and Gas Industry Guidance on Voluntary Sustainability Reporting* (2010). This report also cross-references the Global Reporting Initiative (GRI) *G3.1 Sustainability Reporting Guidelines*. These standards can be downloaded at ipieca.org and globalreporting.org.

Reporting overview	IPIECA/IOGP/API	GRI	Page reported
Chairman's letter		1.1	3
About ExxonMobil and Contributing to progress		2.1, 2.2, 2.3, 2.5, 2.7, 2.8, EC1	4–5
The Outlook for Energy		1.2, EC2	6
Sustainability and Engaging with our stakeholders	SE16	1.2, 4.14, 4.16, 4.17	7
External Citizenship Advisory Panel		4.16, 4.17	8
Key sustainability issues and challenges		1.2, 4.16, 4.17	9–10
Safety, health and the workplace			
Safety	HS1, HS3, HS4, HS5	2.10, 4.8, 4.11, 4.12, 4.13, EN29, DMA-LA, LA7, DMA-PR	12–15
Emergency preparedness and response	E8, SE17	4.11	15–16
Workplace security	SE17	4.11	16
Health and wellness	HS2	LA3, LA8	16–17
Workforce	SE15, SE16, SE17	4.8, EC3, DMA-LA, LA1, LA2, LA3, LA11, LA12, LA13	17–19
Case study: Combating infectious diseases, both inside and beyond our fence line	HS2, SE1, SE4	2.10, EC8, EC9, LA8	20–22
Environmental performance			
Environmental management		4.8, 4.11, DMA-EN	24
Biodiversity and ecosystem services	E5, SE1	EN11, EN12, EN13, EN14, EN15	24–26
Water management	E6, E9	4.11, EN8, EN9, EN10	27–29
Spill performance	E8	4.13, EN23, EN29	29–31
Air emissions	E7	EN20	31
Environmental compliance		EN21, EN28, EN30	32
Rehabilitating the environment		EN13, EN30	32
Managing climate change risks			

Reporting overview	IPIECA/IOGP/API	GRI	Page reported
Community and social impact			
Respecting human rights	SE1, SE8, SE9, SE10, SE17	4.8, 4.12, DMA-HR, HR1, HR2, HR3, HR6, HR7, HR10	44
Managing community impacts	SE1, SE2, SE3	4.8, 4.12, 4.13, EC8, HR9, HR11, DMA-SO, SO1, SO9, SO10	44–48
Strategic community investments	SE4	EC1, EC8, EC9	48–52
Employee participation	SE4	2.10, EC1	52–53
Case study: Responsible production in Papua New Guinea	E5, HS1, SE1, SE3, SE4, SE5, SE6, SE7, SE8, SE10, SE13, SE17	4.12, EC1, EC6, EC7, EN12, EN13, EN14, LA2, LA7, LA11, HR8, HR11, SO1, SO9, SO10	54–56
Local development and supply chain management			
Local economic growth and development	SE5, SE6, SE7, SE17	2.10, 4.13, EC6, EC7	58–60
Supply chain management	SE7, SE9, SE12	2.10, EC6, HR1, HR2	60–62
Corporate governance			
Ethics and integrity	SE11, SE12, SE13, SE16, SE17, SE18	4.8, SO2, SO3, SO4	64–65
Board of directors		4.1, 4.2, 4.5, 4.7, 4.9, 4.10, LA13	65–67
Shareholder relations		4.4, 4.16, 4.17	67
Political advocacy and contributions	SE14	4.17, SO5, SO6	68
About this report			
About this report		3.1, 3.2, 3.3, 3.4, 3.6, 3.8, 4.16, 4.17	69
Materiality		3.5	70
Performance data	E1, E2, E4, E5, E6, E7, E8, E9, E10, HS3, HS5, SE4, SE7, SE13, SE14, SE15, SE17	3.7–3.11, EC1, EN8, EN13, EN16, EN20, EN22, EN23, EN30, LA1, LA2, LA7, LA13, SO6	71–73

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Curriculum Vita - Zachary Rosen

PROFESSIONAL EXPERIENCE

February 2016 – Present: Belmed, Ltd., San Francisco, California

Chief Financial Officer

- Responsible for consolidated financial reporting, internal audits, and budgeting for the company's operations in Europe

August 2014 – December 2015: Magna International, San Francisco, California

Senior Internal Auditor

- Leads operational, compliance, IT, and SOX audits for automotive manufacturing divisions across Europe and Russia. Reviews and appraises adequacy and application of financial and operating controls to ensure compliance with company policies, plans, and rules of regulatory authorities. Responsible for preparing pre-audit file analyses and sample selections to audit teams. Organizes and leads audit closing meetings with division management.
- Prepares written reports of audit results and reviews the results with appropriate management personnel; makes recommendations for the correction of problems noted during the audit. Evaluates training needs of staff auditors; enhances development of entry level auditors by providing fundamental knowledge of auditing and explaining audit objectives and procedures.
- Leads fraud investigations related to improper supplier relationships, payroll fraud, and management conflicts of interests. Compiles and prepares reports for review by internal audit senior management and corporate legal counsel.

Jun 2014 – July 2014: VeriFone Systems, San Jose, California

Auditor (Consulting Engagement)

- Conducted quarterly SOX control testing for a major IT services provider and manufacturer. Worked daily with accounting, finance, and tax personnel on control testing related to monthly close, fixed assets, equity, and tax cycles.

Aug 2013 – Mar 2014: Crowe Horwath LLP, San Francisco, California

Internal Audit - Business Risk Services

- Implemented Sarbanes-Oxley testing for a publicly traded \$800 million U.S. electronics manufacturer and distributor.
- Worked daily with accounting, finance, and tax departments on key control testing which included month and quarter end financial close processes, budgeting and planning reports, derivatives, and journal entry controls. Identified control weaknesses

- in financial planning controls and made recommendations utilized by the client on improving the automation of variance analysis reporting for global subsidiaries, thereby reducing time and errors. Created an accounting policies and procedures manual for a \$500 million U.S. food distribution company which involved extensive interviewing with the process owners of the accounting and purchasing departments.
- Continuously provided thought leadership to Partners and Senior Managers by identifying new business opportunities, improvements on client engagements. Devised a new staff billable monitoring report which was shared nationwide for improved time and billing performance on client engagements. Key Client Engagements: Bank of America, Hanmi Bank, Beal Bank, Plantronics, KMG Chemicals.

Jul 2013 – Aug 2013: Hughes Hubbard & Reed LLP, Washington D.C.

Auditor (Consulting Engagement)

- Worked on a Foreign Corrupt Practices Act (FCPA) and U.K. Anti-Bribery Act project. Developed audit test plans for an international chemicals manufacturer in order to support monitoring requirements of the U.S. Securities and Exchange Commission (SEC), the U.S. Department of Justice, and the U.K. Serious Fraud Office (SFO).

Jan 2012 – Dec 2013: Retail Solutions, Prague, Czech Republic

Consultant

- Ad-hoc consulting of operations and IT audits for retail clients in Europe and Russia.

Jul 2011 - Dec 2012: Deloitte Advisory, Prague, Czech Republic

Manager – Risk Services

- As a Project Manager, led a data discovery and litigation support project team of 10 persons for a publicly traded \$370 billion oil and gas client in the U.S. Engagement assignment involved conducting interviews for client's departing client employees, organizing the collection and imaging of laptop and mobile devices for preservation, data imaging, and database administration. Created project policies and procedures, managed billable revenue, and expense reimbursement reporting. Prepared monthly invoices with monthly revenues in excess of \$250,000. Provided project management support on an Anti-Money laundering (AML) international banking project, which included preparing functional specifications as part of software solution implementation for an international bank, resulting in improved fraud detection. Platform focused on Customer Due Diligence / Know Your Customer (CDD/KYC). Additional engagement initiatives included AML staffing assessments, review of procedures, employee training, and development of a quality control program.

Aug 2008 – Jul 2011: Mazars, Prague, Czech Republic

Senior Manager, Accounting and Payroll Services // Business Development– Europe

Initial role was Senior Manager of Accounting and Payroll Services, managing client accounting and payroll services. Role developed to business development focus of audit, tax, accounting, and advisory services to new clients in Europe.

- Drove sales forecasting in Europe working with country Managing Partners and Senior Managers by creating new performance analyses, dashboards, and metrics to improve revenue and pricing strategies on a monthly basis.
- Contributed to development of market segment business plans and expansion of portfolio through new targeting.
- Managed and cross-trained senior staff on proposals and sales pipeline development.
- During 2010-2011 business year, conducted over 190 introductory meetings with company CFOs/CEOs, identified and presented offers of \$4 million, resulting in new wins with an annual turnover of \$400,000.

(2000– 2008) - Rosen Consulting // Notable Engagement(s):

High Street Partners, Washington, D.C.

Financial Operations Manager

- Responsible for relationship management and advising client CFOs / Controllers on international expansion plans.
- Managed the set-up of foreign subsidiaries as cost / revenue centers throughout Europe and Asia as well as providing oversight on the preparation of monthly close financial reporting packages in accordance to U.S. GAAP in coordination with local subsidiary accountants and local accounting service providers.
- Increased the profitability of all clients assigned by 20% - 60% through consistency in communication and management as well as identifying billable advisory work opportunities.

Federal National Mortgage Association (Fannie Mae), Washington, D.C.

Sarbanes Oxley 404 Internal Auditor and Financial Restatement Consultant

Responsible for assessing business risks, adherence to company policies and procedures, support and development of an internal audit plan, whilst conducting management walkthroughs, interviews with business process owners, and preparing plans for documentation testing of several mortgage investment divisions. Project management oversight of two groups totaling 12 team members per team. Conducted internal control testing for 10 end user accounting applications (EUCs).

- Through SOX 404 testing, recommended remediation activities for improvement of controls and financial reporting which contributed to the overall restatement of \$6.3 billion in revenues for the period of 2001-2004.
- Initiated high level communications of SOX implementation on a regular basis to Fannie Mae Directors for which outstanding internal control issues were remediated prior to the execution of financial restatement data
- Successful in managing and developing audit professionals while on the project.

Chemonics International Inc., Washington, D.C.

European Regional Accountant

Responsible for supervising and training an accounting staff of 18 for regional projects in Europe, Africa, and Asia (annual sales \$30 million) and leading monthly close process for consolidation.

- Reviewed operational budgets, conducted monthly variance analyses, cash management/wire transfer requests, and all expenses reported by the field for billing purposes. Produced monthly financial reports to senior management. Conducted operational audits worldwide for compliance to U.S. GAAP and U.S. government accounting regulations.
- Created key performance metrics for accounting staff based on accounting entry irregularities. Metrics shared with staff on a monthly basis for which the team was able to minimize future mistakes and increase work performance.
- Revised and improved accounting policies and procedures manual for the company's projects in 70+ countries.

Soosid Supermarkets, Kiev, Ukraine

Co-Founder and Director of Finance

- Developed business plan and financial model to open a supermarket chain with the exit strategy of selling to a western retailer. Managed 60 employees, prepared financial and operational policy manuals, and audits.
- Conducted sales forecasts, presentations, and monthly reports to private investors.
- Managed operational and capital expenditures budgeting and contributed significantly to financial planning, competitor price analyses, SKU analyses for optimization of markdown performance, and store promotion strategies.

Vodafone, Prague, Czech Republic

Investor Relations Manager Consulting Engagement

- Prepared investor presentations, financial calendar, quarterly and annual reports for Vodafone's mobile assets (Oskar Mobil – Czech Republic, and Mobifon – Romania) which were released to shareholders and industry analysts.

- Monitored variances against budgets / forecasts and provided financial insights to help the business close performance gaps. Performed financial analyses, reported findings, and recommendations to executive management.
- Supported management in the financial assessment of potential opportunities and development of ROI of handsets, data, and voice revenue.
- Informed employees of sales growth and new services through writing quarterly financial management reports.

Sep 1997 – Jun 1999: Worth Chemical (Holland Chemical – Acquired by Brenntag Chemicals in 2000), Greensboro and Charlotte, NC

Operations Manager

Responsibilities in all facets of the business of chemical distribution in the U.S. Southeast region including sales, accounting, operations, customer service and market research.

- Successful in reorganizing chemical warehouse facilities for improved logistics, identification of missing inventory, and reducing physical inventory count time.
- Raised the branch's industry standards by implementing ISO 9000 processes and training employees.
- Ranked among the top three in new accounts in the U.S. southeast region.

EDUCATION

Johns Hopkins University, Baltimore, MD - Masters in Environmental Monitoring

Florida Atlantic University, Boca Raton, FL - Master of Accounting

Thunderbird School of Global Management, Arizona State University, Phoenix AZ - Master of International Management

Weatherhead School of Management, Case Western Reserve University, Cleveland, OH - Master of Business Administration (Finance Concentration)

Indiana University, Bloomington, IN - Bachelor of Arts, Political Science

CERTIFICATIONS

- 2008 - Present: Certified Internal Auditor (License 80357), Certified Fraud Examiner (License 552970), Certified Information Systems Auditor.
- 2015 - Present: CPA candidate (exams in progress).